



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200
Fax 613 632-5246

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
PO041832	TWN001-VU	1	1	Net 30	M304TR0.500W.049	304 Round Tube .500 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft				120	12/4/2018	120		S133773	Stock	11/30/2018	\$ 3.44 / ft	2		\$412.62	TW Metals
		2			M304TR0.750W.049	304 Round Tube .750 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft						120		S133774	Stock	11/30/2018	\$ 2.58 / ft	2		\$309.48	TW Metals
		4			M4130NT0.750W.049	4130 Round Tube .750 X .049W : MATERIAL: AISI 4130N STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 receive ft				48		45		S133775	Stock	11/30/2018	\$ 6.25 / ft	2		\$278.13	TW Metals
		6			M6061T6T0.500W.049	6061-T6 Round Tube .500 X .049W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft				24		24		S133776	Stock	11/30/2018	\$ 2.91 / ft	2		\$69.84	TW Metals
		7			M6061T6T0.500W.058	6061-T6 Round Tube .500 X .058W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft				168		168		S133779	Stock	11/30/2018	\$ 2.15 / ft	2		\$361.07	TW Metals

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	Total	Supplier Name
		9			M6061T6T0.625W.125	6061-T6 Round Tube 0.625 X.125W : MATERIAL : 6061- T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft				120		120		S133777	Stock	11/30/2018	\$ 5.15 / ft	2		\$618.00	TW Metals
Total:										600		597								\$2,049.13	

Plex 12/2/2018 5:26 PM dart.Tollis Andrew



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO041832

Supplier: TWM001-VU
TW Metals
PO Box 933014
Atlanta, GA 31193-3014 USA
Phone: 585 768 5600
Fax: 585 768 5601

PO No: PO041832
PO Date: 11/23/18
Due Date: 12/4/18

Purchase Order Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
NOV 23 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1 AT		M304TR0.500W.049		304 Round Tube .500 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft	Firmed	-	12/4/18	120 ft	0 ft	120 ft	\$3.4385/ft	\$412.62
2 AT		M304TR0.750W.049		304 Round Tube .750 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft	Firmed	-	12/4/18	120 ft	0 ft	120 ft	\$2.579/ft	\$309.48
3 AT		M304TR1.000W.049		304 Round Tube 1.00 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft	Firmed	-	12/4/18	12 ft	0 ft	12 ft	\$2.948/ft	\$35.38
4 AT		M4130NT0.750W.049		4130 Round Tube .750 X .049W : MATERIAL: AISI 4130N STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6360/6361/6362 6373/6374 receive ft	Firmed	-	12/4/18	48 ft	0 ft	48 ft	\$6.25/ft	\$300.00



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO041832

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5		M6061T6T0.375W.058		6061-T6 Round Tube .375 X.058W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	-	12/4/18	120 ft	0 ft	120 ft	\$2.6404/ft	\$316.85
6 ✓ AT		M6061T6T0.500W.049		6061-T6 Round Tube .500 X.049W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	-	12/4/18	24 ft / 24 ft	0 ft	24 ft	\$2.91/ft	\$69.84 M 18/12/02
7 ✓ AT		M6061T6T0.500W.058		6061-T6 Round Tube .500 X.058W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	-	12/4/18	160 ft / 168 ft	0 ft	160 ft	\$2.1492/ft	\$343.87 AT 18/12/02
8		M6061T6T0.625W.065		6061-T6 Round Tube .625 X.065W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	-	12/4/18	48 ft	0 ft	48 ft	\$3.1499/ft	\$151.20



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Hawkesbury, ON
K6A 1K7
Canada

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PURCHASE ORDER **PO041832**

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
9 <i>At</i>		M6061T6T0.625W.125		6061-T6 Round Tube 0.625 X.125W : MATERIAL: 6061- T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	-	12/4/18	120 ft	0 ft	120 ft	\$5.15/ft	\$618.00
											<i>✓ 120ft At 18/12/18</i>	

Grand Total: \$2,557.23

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 11/23/18 1:29 PM dart.lavoie.chantal

Chantal Lavoie

From: Chantal Chartrand
Sent: Wednesday, November 21, 2018 10:16 AM
To: Jason Leroux; Robert Aboud; Chantal Lavoie
Cc: Linda Lacelle
Subject: RE: order asap

Adding Chantal L

From: Jason Leroux <jleroux@dartaero.com>
Sent: November 21, 2018 10:15 AM
To: Chantal Chartrand <cchartrand@dartaero.com>; Robert Aboud <raboud@dartaero.com>
Cc: Linda Lacelle <llacelle@dartaero.com>
Subject: order asap

Plz order m6061t6t0.625w.125 minimum of 60 feet thx



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 60669484

FROM: CRAN

PAGE 1

CUST NUMBER: 1203820 NET WGT: 134.205 REQ.DATE: 12/04/18 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 11/28/18
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO041832 RELEASE NO.:
RECEIVING PHONE:

LINE	ITEM DESCRIPTION	WIDTH	LENGTH
0001	36506 SMLS CD 304/L A269 1/2 OD X .049 WA		20' ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	120.000 FT	120.000 FT	120.000 FT	28.310	6

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49380769 HT:N171009AS12 PC: 6 CUSTOMER QTY: 40.000 UOM FT
MLT:CHINA MFG:CHINA SLB/CL:180419769-10
PO:49385111 HT:N180118AS01 PC: 4 CUSTOMER QTY: 80.000 UOM FT
MLT:CHINA MFG:CHINA SLB/CL:0518111-04

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
0002	36860 SMLS CD 304/L A269 3/4 OD X .049 WA			20' CL	

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	120.000 FT	120.000 FT	120.000 FT	44.006	6

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49385121 HT:N180118AS01 PC: 6 CUSTOMER QTY: 120.000 UOM FT
MLT:CHINA MFG:CHINA SLB/CL:18MTC-0725121-07

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
0003	33047 CDS 4130 6736 3/4 OD X .049 WA			17/24 FT	

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	48.000 FT	44.500 FT	44.500 FT	16.319	2

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 9A991.d Export License: NLR Expiration Date: 0/00/00
PO:49390181 HT:MM18102836 PC: 2 CUSTOMER QTY: 44.500 UOM FT
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:164385

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 60669484

FROM: CRAN

PAGE 2

CUST NUMBER: 1203820 NET WGT: 134.205 REQ.DATE: 12/04/18 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA ONTARIO CANADA CN K6A 1K7 CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 11/28/18
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO041832 RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION WIDTH LENGTH

0004 42252 D6061-T6 1/2 OD X .049 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	24.000 FT	24.000 FT	24.000 FT	1.958	2

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49392434 HT:F002772380001 PC: 2 CUSTOMER QTY: 24.000 UOM FT
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:226653

0005 42276 D6061-T6 1/2 OD X .058 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	160.000 FT	168.000 FT	168.000 FT	15.906	14

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49378297 HT:F002542390002 PC: 1 CUSTOMER QTY: 12.000 UOM FT
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:224471
PO:49380023 HT:F002573770001 PC: 13 CUSTOMER QTY: 156.000 UOM FT
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:224733

0006 42588 D6061-T6 5/8 OD X .125 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	120.000 FT	120.000 FT	120.000 FT	27.706	10

** 1 TEST REPORTS REQUIRED **

1

THANK YOU FOR THIS ORDER

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O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 60669484 FROM: CRAN PAGE 3

CUST NUMBER: 1203820 NET WGT: 134.205 REQ.DATE: 12/04/18 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 11/28/18
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO041832 RELEASE NO.:
RECEIVING PHONE:

LINE	ITEM DESCRIPTION	WIDTH	LENGTH
** 1	CERTS REQUIRED **		
ECCN:	EAR99 Export License: NLR		Expiration Date: 0/00/00
PO:49375542	HT:F002495120001 PC: 3	CUSTOMER QTY:	36.000 UOM FT
MLT:UNITED STATES	MFG:UNITED STATES	SLB/CL:224098	
PO:49393501	HT:F002801070001 PC: 7	CUSTOMER QTY:	84.000 UOM FT
MLT:UNITED STATES	MFG:UNITED STATES	SLB/CL:226851	

BROKERS KUEHNE AND NAGEL LTD

-----		PACK INFO -----			-----	
AREA	TYPE OF PKG	PKGS	GRS WEIGHT	WIDTH	LENGTH	HGHT
B	REDDICRATE	1.000	172.000		274.0000	
					CUBIC FT	
		1.000	172.000			

BY: WN
RT 000-

UNLOAD TYPE: NONE SPECIFIED

DATE SHIPPED _____

DATE FILLED _____

THANK YOU FOR THIS ORDER

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REVIEW.
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O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 60669484

FROM: CRAN

PAGE 4

CUST NUMBER: 1203820	NET WGT: 134.205	REQ.DATE: 12/04/18	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKSURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7

SALESPERSON: DONNA SMALLEY	SHIP BY: 11/28/18
TERMS: NET 30 DAYS	27 ENGLEHARD DRIVE
F.O.B.: SHIPPING POINT	MONROE TWP NJ 08831
CUST ORD NO.: PO041832	
VIA: COMMON CARRIER	
FREIGHT: PREPAID	
RELEASE NO.:	
RECEIVING PHONE:	

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Electronically Generated Certificate-Valid without signature Date: 11/28/18

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>



JIAXING MT STAINLESS STEEL CO.,LTD

MILL TEST CERTIFICATE

EN10204 3.1 CERTIFICATE

ISO 9001: 2015 TUV SUD CERT REGISTRATION No.: 01 100 095954
PED/97/23/CE EURO CERT CERTIFICATE NO:CN.CE.1110S1-02/14



CERTIFICATE NO.: 18MTC-0725121-07

SALES CONTRACT NO.: M 49385121

COMMODITY: STAINLESS STEEL SEAMLESS TUBE

SPECIFICATION: ASTM A269-15a, ASTM A213-17, ASME SA213-17

PURCHASER: KASUGAI CO., LTD.

ORDER: M 49385121

DATE OF REPORT: 2018-7-25

Steel Grade	Heat No.	Dimensions			Quantity		Process	Delivery Condition	Macroscopic Inspection	
		O.D. (INCH)	W.T. (INCH)	Length (FT)	FT	Piece			End Cut	Appearance
TP304/TP304L	N180118AS01	3/4	0.049	20	5200	260	Cold-Drawn	Pickled & 320 Grit polish	Passed	Passed

Chemical Composition (W.T. %)

Element	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	-	-	-	-	-
Requirements	≤0.035	≤1.00	≤2.00	≤0.045	≤0.030	18.0-20.0	8.0-11.0	-	-	-	-	-	-	-
Ladle Analysis	0.017	0.35	1.37	0.036	0.001	18.1	8.01	-	-	-	-	-	-	-

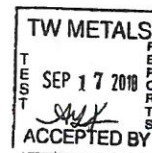
Mechanical Properties

Test Item	Y.S. (MPa) Rp0.2	T.S. (MPa) Rm	EL. (%) In2in	Reduction of Area Z (%)	Hardness s	Cold Bend Test	Flaring Test	Flattening Test	P.M.I. TEST
Requirements	≥205	≥515	≥35	-	≤80	-	-	e=0.09	-
Test Results	260	580	50	-	75	Passed	Passed	Passed	Passed

Test Item	Non Destructive Tests	Remarks: - ASTM A269-15a, ASTM A213-17, ASME SA213-17 - TUBES TESTED PER ASTM A1016 - SOLUTION HEAT TREATMENT: 1050°C X 1.5m/min - NO WELD REPAIR WAS PERFORMED. - PMI TESTING DONE ON EACH TUBE – SATISFACTORY - IN COMPLIANCE WITH NACE MR0175/ISO 15156-2015 - FREE FROM MERCURY CONTAMINATION - MATERIAL IS FREE FROM RADIOACTIVITY - VISUAL CHECK IS SATISFACTORY - COUNTRY OF ORIGIN: CHINA - COUNTRY OF MELT: CHINA
	Eddy Current Test	
Requirements	ASTM E 426	
Test Results	Passed	

TW METALS
TEST
SEP 17 2018
ACCEPTED BY
[Signature]

REPORTS
316L STAINLESS STEEL
QUALITY CONTROL
D.F.P.



1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT
2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.

Prepared by:

Signature

Approved by:

Signature

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING

SPECIFICATION: ASTM A213 OR ASME SA213 OR ASTM A269

WALL THICKNESS TOLERANCE PER ASTM A269 AS FOLLOWS:

	PERMISSIBLE OD TOL (IN)	PERMISSIBLE WALL TOL
UP TO 1/4	±0.005	±15%
1/4 TO 1 1/2 EXCL	±0.005	±10%
1 1/2 TO 3 1/2 EXCL	±0.010	±10%
3 1/2 TO 8 1/2 EXCL	±0.015	±10%
8 1/2 TO 8 EXCL	±0.030	±10%

PART NUMBER: M304TR10.DDD(W).TTT

WHERE "D.DDD" = OUTSIDE DIAMETER IN INCHES
AND ".TTT" = WALL THICKNESS IN INCHES

EG. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065

RELEASED
07/26/23

B	REFORMAT LING. ADD SPECS (ZN D8-1)	CP	08-10-20
A	NEW ISSUE	DS	01-05-06
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG APPR			
APPROVED			
DE APPR			
DATE	08.10.20		
DART AEROSPACE LTD			
HAYKESBURY ONTARIO CANADA			
DRAWING NO M304TR			
REV B			
SHEET 1 OF 1			
TITLE			
304/316 ROUND TUBING			
SCALE			
NTS			
DATE 08.10.20			
DART AEROSPACE LTD			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304TR0.750W.049
 DATE: 18/12/02

PO / BATCH NO.: P0041832/S133774

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 120ft
 QUANTITY INSPECTED: 120ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750"
 THICKNESS RECEIVED: 0.750"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	ASTM A269
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	LT: N1801184501
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> <u>0.89</u>	SIGNED OFF BY: _____
DATE: <u>18/12/02</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



PLYMOUTH TUBE CO. USA

1209 East 12th Street, Streator, Illinois 61364

Phone: (815) 673-1515 Fax: (815) 672-7343

TRUST YOUR SOURCE! ACCEPT NO SUBSTITUTIONS!



PRODUCT CERTIFICATION

SALES ORDER - LINE / RLS

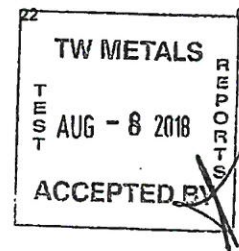
164385 - 1 / 1

SHIP TO

TW Metals
27 Englehard Drive
Monroe Township, NJ 08831
USA

WORK ORDER 022998
HEAT NUMBER MM18102836
MELT SOURCE Nucor Steel - USA Melt/Mfg

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	LADING NO	CERT ID / REV	CERT DATE								
M 49390181	33047	5,006.3 ft	00102474	00153616 / 01	07/27/2018								
PART DESCRIPTION H07500490J000Z OD: 0.7500" Max: 0.7550" Min: 0.7450" Wall: 0.0490" Max: 0.0540" Min: 0.0440" Length: 17.00' /24.00' Spec: MIL-T-6736B Seamless Aircraft Grade: 4130 Finish: Cond N													
CERTIFICATION REQUIREMENTS FAR BAA (FAR 52.225-1 Buy America Act Supplies), DFARS 252.225-7001 By America Act & Bal. of Payments Program FAR TAA (FAR 52.225-5 Trade Agreements)(Paragraph 1,3,4,5)This material was Eddy Current tested and conforms to the requirements of ASTM A-450.The Grain size is determined and reported by the raw material supplier in accordance to ASTM E-112. This raw material was magnetic particle inspected by the raw material supplier in accordance to AMS 2640J and/or ASTM E-1444, and rated as Frequency, and Severity to AMS 2301, latest revision. Yield is determined by using the 0.2% offset method.This material meets Plymouth ProMoly specifications. Material certified to AMS-T 6736 B AND AMS 6360 N.													
Chemical Analysis													
C	Mn	P	S	Si	Al	Cr	Mo	Ni	Pb	Cu	V	Ti	Sn
.32	.55	.008	.005	.26	.021	1.03	.206	.14	.000	.14	.0017	.002	.006
Physical Properties													
Freq.	Severity	Grain Size											
.000	.000	5											
Mechanical Properties													
TEST	UNITS	#TESTS	HIGH	LOW	AVERAGE	STD-DEV							
Tensile	Psi	23	121740	112590	116548	2783							
Yield	Psi	23	114010	104960	108963	2729							
Elongation	%	23	22	19	20	1							
Rockwell C	Rc	23	22	22	22	0							
TEST	RESULT												
Decarb/OD	Pass												
Total ID/OD decarb	Pass												
This test report data is for the heat Chemistry Stated above. The material in this test report is:													



I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

Janice Berossell
Quality Assurance



PLYMOUTH TUBE CO. USA

1209 East 12th Street, Streator, Illinois 61364

Phone: (815) 673-1515 Fax: (815) 672-7343

TRUST YOUR SOURCE! ACCEPT NO SUBSTITUTIONS!



PRODUCT CERTIFICATION

SALES ORDER - LINE / RLS

164385 - 1 / 1

SHIP TO

TW Metals
27 Englehard Drive
Monroe Township, NJ 08831
USA

WORK ORDER 022998
HEAT NUMBER MM18102836
MELT SOURCE Nucor Steel - USA Melt/Mfg

CUSTOMER P.O.	CUSTOMER PART	QUANTITY	LADING NO	CERT ID / REV	CERT DATE
M 49390181	33047	5,006.3 ft	00102474	00153616 / 01	07/27/2018
PART DESCRIPTION H07500490J000Z					
1) Drawn in the USA					
2) Free from Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE), and Mercury contamination.					
3) NAFTA compliant.					
End of Certification					

I certify that the results are a true and correct copy of the records prepared and maintained by Plymouth Tube Company, Streator in compliance with the requirements of the cited specification. Chemistry is as reported by the Steel supplier. This test report cannot be reproduced or distributed except in full without the written permission of Plymouth Tube.

Janice Derossuff
Quality Assurance

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 4130N SEAMLESS STEEL TUBING

SPECIFICATION: MIL-T-8736 OR AMS 6377, 6360, 6361, 6362, 6373, 6374

PART NUMBER: M4130N (D.DDD) (W.TTT) WHERE: "D.DDD" = OUTER DIAMETER (IN INCHES)
AND "TTT" = WALL THICKNESS (IN INCHES)

DIA. WALL

EG. 3/4" TUBING WITH .035" WALL = M4130NT0.750W.035

RELEASE
R 2012-06-16

B	REFORMAT DWG TO ACCOMMODATE ADDITIONAL TUBE DIAMETERS AND WALL THICKNESS	RP	12 04 02
A	NEW ISSUE	JB	01 05 16
REV	DESCRIPTION	BY	DATE
DESIGN	JB		
DRAWN	RP		
CHECKED	AP		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	12.04.02		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M4130N-T			
REV. B			
SHEET 1 OF 1			
TITLE STEEL TUBING			
SCALE NTS			
DATE 12.04.02			
COPYRIGHT © 2001 BY DART AEROSPACE LTD. THIS DOCUMENT IS UNCLASSIFIED AND IS AVAILABLE TO THE PUBLIC. NO FURTHER ACTION IS REQUIRED. FOR THE USE OF THE PUBLIC, THIS DOCUMENT IS RELEASED BY THE NATIONAL ARCHIVES.			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4130NTP-750W-049

PO / BATCH NO.: P0041832/S133775

DATE: 18/12/02

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.750"

QUANTITY RECEIVED: 44.50ft

THICKNESS RECEIVED: 0.750"

QUANTITY INSPECTED: 44.50ft

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> N	<u>AMS 6360</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> N	<u>HTA MM 18102836</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 61</u> DATE: <u>18/12/02</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

KAISER ALUMINUM

FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49392434-1		CUSTOMER PART NUMBER: 42252		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 226653	LINE ITEM: 001	SHIP DATE: 08/14/2018	KAISER LOT NUMBER: F00277238	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 627.000 LB	QUANTITY: 643.000 PCS	B/L NUMBER: 230677	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

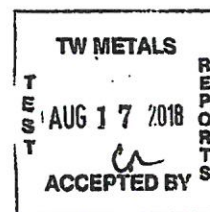
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00277238	0001	0001	46.9	39.5	17.0	N/A	N/A	N/A
F00277238	0002	0001	46.9	38.8	19.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D21754	.62	.28	.23	.04	.98	.09	.04	.02	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.5000"; Wall: 0.0490"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA (DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5 TRADE AGREEMENTS).

Plant Serial: 00029198
Kaiser Order Number: 226653
Line Item: 001

a

KAISER ALUMINUM

FABRICATED PRODUCTS

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CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

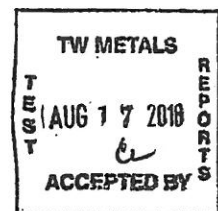
KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager

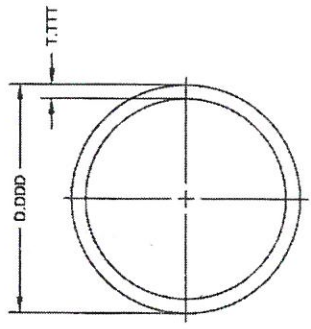
[Signature]



e

8 7 6 5 4 3 2 1

D C B A



RELEASED
2013-07-02

PURCHASE MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING

SPECIFICATION: WW-T-700/8
OR QQ-A-200/8 OR QQ-A-225/8
OR AMS 4083 OR AMS 4082 OR AMS 4083
OR ASTM B210 OR ASTM B241

PART NUMBER: M6061T6T1D.DDD|W|T.TTT
OD | WALL

WHERE "D.DDD" = OD IN INCHES
"T.TTT" = WALL THICKNESS
EG. 3/8" OD X 0.058 WALL = M6061T6T0.375W0.058
MATERIAL TOLERANCE: PER ANSI H35.2

C	COMPLETE REFORMAT, ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.06.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	W		
MFG. APPR.	M6061T6T		
APPROVED	W		
DE APPR.			
DATE	13.06.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. REV. C			
M6061T6T SHEET 1 OF 1			
TITLE SCALE			
6061-T6 TUBING			
DATE 13.06.12 NTS			
COPYRIGHT © 2001 BY DART AEROSPACE LTD			
THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE MANUFACTURE OF THE PARTS AND ASSEMBLIES SPECIFIED THEREIN. IT IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.			

8 7 6 5 4 3 2 1

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T670-500w.049

PO / BATCH NO.: P0041832 / 5133776

DATE: 18/12/02

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 0.500"

QUANTITY RECEIVED: 244

THICKNESS RECEIVED: 0.500"

QUANTITY INSPECTED: 244

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y N	<u>ASTM B210</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y N	<u>MT: F00277238 0001</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 61</u> 9-89	SIGNED OFF BY: _____
DATE: <u>18/12/02</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

KAISER ALUMINUM FABRICATED PRODUCTS

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49378297-1		CUSTOMER PART NUMBER: 42276		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 224471	LINE ITEM: 001	SHIP DATE: 11/07/2017	KAISER LOT NUMBER: F00254239	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 463.000 LB	QUANTITY: 406.000 PCS	B/L NUMBER: 227417	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

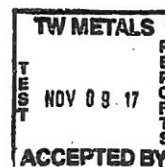
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00254239	0001	1	46.6	40.1	18.0	N/A	N/A	N/A
F00254239	0002	1	44.8	38.8	17.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D0674A	.60	.26	.21	.05	.97	.09	.04	.03	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.5000"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA (DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5 TRADE AGREEMENTS).

Plant Serial: 00026618
Kaiser Order Number: 224471
Line Item: 001

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

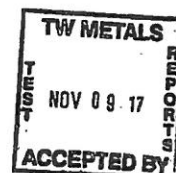
CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager



W

KAISER ALUMINUM FABRICATED PRODUCTS

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CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49380023-1		CUSTOMER PART NUMBER: 42276		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 224733	LINE ITEM: 001	SHIP DATE: 12/18/2017	KAISER LOT NUMBER: F00257377	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 535.000 LB	QUANTITY: 469.000 PCS	B/L NUMBER: 227858	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00257377	0001	1	47.1	42.3	16.0	N/A	N/A	N/A
F00257377	0002	1	47.3	41.8	18.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D30857	.60	.29	.24	.04	.93	.08	.06	.02	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.5000"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS).

Plant Serial: 00026922
Kaiser Order Number: 224733
Line Item: 001

15

KAISER
ALUMINUM
FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

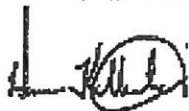
<http://Online.KaiserAluminum.com>

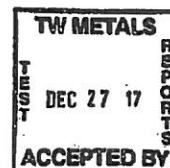
KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

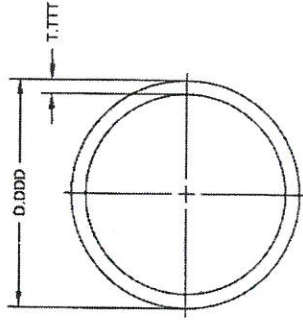
Hans Kattentidt, Quality Manager





467

RELEASED
2013-07-02



PURCHASE MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING

SPECIFICATION:

WW-T-7006
OR QQ-A-200/8 OR QQ-A-225/8
OR AMS 4080 OR AMS 4082 OR AMS 4083
OR ASTM B210 OR ASTM B241

PART NUMBER:

M6061T6T1D.DDD|W|T.TTT
OD | WALL

WHERE "D.DDD" = OD IN INCHES
"T.TTT" = WALL THICKNESS

EG. 3/8" OD X 0.058 WALL = M6061T6T0.375W0.058

MATERIAL TOLERANCE:

PER ANSI H35.2

C	COMPLETE REFORMAT. ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.06.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED			
MFG. APPR.	DRAWING NO. M6061T6T		REV. C SHEET 1 OF 1
APPROVED	TITLE 6061-T6 TUBING		SCALE NTS
DE APPR.			
DATE	13.06.12		

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 TO-5000.58
 DATE: 18/12/02

PO / BATCH NO.: P0041832/S133779

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 168L+
 QUANTITY INSPECTED: 168L+
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500"
 THICKNESS RECEIVED: 0.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> N	ASTM B210
CORRECT THICKNESS	<input checked="" type="checkbox"/> N	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> N	HT: F002542390002; F00257377 (new)
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> <u>9-89</u>	SIGNED OFF BY: _____
DATE: <u>18/12/02</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

KAISER ALUMINUM FABRICATED PRODUCTS

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49375542-1		CUSTOMER PART NUMBER: 42588		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 224098	LINE ITEM: 001	SHIP DATE: 09/11/2017	KAISER LOT NUMBER: F00249512	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 241.000 LB	QUANTITY: 87.000 PCS	B/L NUMBER: 226742	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 27 ENGLEHARD DRIVE EXIT 8A OFF NJ TPK MONROE TWP, NJ 08831 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00249512	0001	1	47.7	41.2	19.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D30480	.58	.31	.23	.04	.94	.09	.05	.02	.00	.00	.00	.02	.03

Applicable Requirements:

Description: OD: 0.6250"; Wall: 0.1250"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS).

KAISER
ALUMINUM
FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager

[Signature]

KAISER ALUMINUM FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER: M49393501-1		CUSTOMER PART NUMBER: 42588		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 226851	LINE ITEM: 001	SHIP DATE: 09/11/2018	KAISER LOT NUMBER: F00280107	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 233.000 LB	QUANTITY: 84.000 PCS	B/L NUMBER: 231019	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 27 ENGLEHARD DRIVE EXIT 8A OFF NJ TPK MONROE TWP, NJ 08831 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

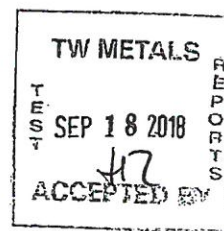
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00280107	0001	0001	48.4	42.3	16.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D21991	.59	.26	.23	.04	.98	.09	.04	.02	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.6250"; Wall: 0.1250"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1.1, Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS).

Plant Serial: 00029465
Kaiser Order Number: 226851
Line Item: 001

KAISER

ALUMINUM

FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

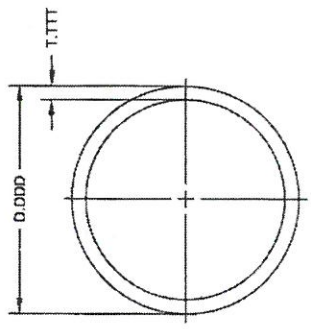
CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt; Quality Manager



RELEASED
2013-07-02



PURCHASE MATERIAL: 6061-T6/62/76510/76511 SEAMLESS TUBING

SPECIFICATION: WW-T-700/6
OR QQ-A-200/8 OR QQ-A-225/8
OR AMS 4083 OR AMS 4082 OR AMS 4083
OR ASTM B210 OR ASTM B241

PART NUMBER: M6061T6T6.DDD/IWT.TTT
OD | WALL

WHERE "D.DDD" = OD IN INCHES
"I.TTT" = WALL THICKNESS
EG. 3/8" OD X 0.058 WALL = M6061T6T6.375W0.058
MATERIAL TOLERANCE: PER ANSI H35.2

C	COMPLETE REFORMAT, ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.06.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	W		
MFG. APPR	M6061T6T		
APPROVED			
DE APPR			
DATE	13.06.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. REV. C			
M6061T6T SHEET 1 OF 1			
TITLE SCALE			
6061-T6 TUBING NTS			
COPYRIGHT ©2001 BY DART AEROSPACE LTD			
THIS DOCUMENT IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE			
NOT TO BE RELEASED OR DISCLOSED TO ANY OTHER PERSON WITHOUT			
APPROPRIATE AUTHORITY			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 70.625W.125
 DATE: 18/12/03

PO / BATCH NO.: P0041832/5133777

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 120ft
 QUANTITY INSPECTED: 120ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625"
 THICKNESS RECEIVED: 0.625"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<u>(N)</u>	
CORRECT FINISH	<u>(Y)</u>	N	
CORROSION	Y	<u>(N)</u>	
CORRECT GRAIN DIRECTION	<u>(Y)</u>	N	
CORRECT MATERIAL PER M-DRAWING	<u>(Y)</u>	N	<u>ASTM B210</u>
CORRECT THICKNESS	<u>(Y)</u>	N	
PHOTO REQUIRED	Y	<u>(N)</u>	
CORRECT REF # TO LINK CERT	<u>(Y)</u>	N	<u>F-00249512; F00280107 0001</u>
CORRECT MATERIAL IDENTIFICATION	<u>(Y)</u>	N	
CORRECT M# ON THE MATERIAL	<u>(Y)</u>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<u>(N)</u>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<u>(N)</u>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>61</u> <u>9-89</u>	SIGNED OFF BY: _____
DATE: <u>18/12/03</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



JIAXING MT STAINLESS STEEL CO.,LTD

MILL TEST CERTIFICATE

EN10204 3.1 CERTIFICATE

ISO 9001: 2015 TUV SUD CERT REGISTRATION No.: 01 100 095954

PED/97/23/CE EURO CERT CERTIFICATE NO:CN.CE.1110S1-02/14



Precisely Right.

CERTIFICATE NO.: 18MTC-180419769-10

SALES CONTRACT NO.: M 49380769

COMMODITY: STAINLESS STEEL SEAMLESS TUBE

SPECIFICATION: ASTM A269-15a, ASTM A213-17, ASME SA213-17

PURCHASER: KASUGAI CO., LTD.

ORDER: M 49380769

DATE OF REPORT: 2018-4-19

Steel Grade	Heat No.	Dimensions			Quantity		Process	Delivery Condition	Macroscopic Inspection	
		O.D. (INCH)	W.T. (INCH)	Length (FT)	FT	Piece			End Cut	Appearance
TP304/TP304L	N171009AS12	1/2	0.049	20	10460	523	Cold-Drawn	Pickled & 320 Grit polish	Passed	Passed

Chemical Composition (W.T. %)

Element	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	-	-	-	-	-
Requirements	≤0.035	≤1.00	≤2.00	≤0.045	≤0.030	18.0-20.0	8.0-11.0	-	-	-	-	-	-	-
Ladle Analysis	0.014	0.38	1.34	0.031	0.001	18.21	8.04	-	-	-	-	-	-	-

Mechanical Properties

Test Item	Y.S. (MPa) Rp0.2	T.S. (MPa) Rm	EL. (%) In2in	Reduction of Area Z (%)	Hardness s	Cold Bend Test	Flaring Test	Flattening Test	P.M.I. TEST
Requirements	≥205	≥515	≥35	-	≤80	-	-	e=0.09	-
Test Results	290	605	60	-	77	Passed	Passed	Passed	Passed

Test Item	Non Destructive Tests		Remarks: ASTM A269-15a, ASTM A213-17, ASME SA213-17 - TUBES TESTED PER ASTM A1016/1016M - SOLUTION HEAT TREATMENT: 1050°C X 1.5m/min - NO WELD REPAIR WAS PERFORMED. - PMI TESTING DONE ON EACH TUBE - SATISFACTORY - IN COMPLIANCE WITH NACE MR0175/ISO 15156-2015 - FREE FROM MERCURY CONTAMINATION - MATERIAL IS FREE FROM RADIOACTIVITY - VISUAL CHECK IS SATISFACTORY - COUNTRY OF ORIGIN: CHINA - COUNTRY OF MELT: CHINA
	Eddy Current Test		
Requirements	ASTM E 426		
Test Results	Passed		

TEST STAINLESS STEEL
QUALITY CONTROL
DEP.

TW METALS
TEST
JUN 08 2018
Eric T.
ACCEPTED BY

REPORTS



1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT
2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.

Prepared by: [Signature]

Approved by: [Signature]



JIAXING MT STAINLESS STEEL CO.,LTD

MILL TEST CERTIFICATE

EN10204 3.1 CERTIFICATE

ISO 9001: 2015 TUV SUD CERT REGISTRATION No.: 01 100 095954
PED/97/23/CE EURO CERT CERTIFICATE NO:CN.CE.1110S1-02/14



Precisely Right.

CERTIFICATE NO.: 18MTC-0518111-04

SALES CONTRACT NO.: M 49385111

COMMODITY: STAINLESS STEEL SEAMLESS TUBE

SPECIFICATION: ASTM A269-15a, ASTM A213-17, ASME SA213-17

PURCHASER: KASUGAI CO., LTD.

ORDER: M 49385111

DATE OF REPORT: 2018-5-18

Steel Grade	Heat No.	Dimensions			Quantity		Process	Delivery Condition	Macroscopic Inspection	
		O.D. (INCH)	W.T. (INCH)	Length (FT)	FT	Piece			End Cut	Appearance
TP304/TP304L	N180118AS01	1/2	0.049	20	8640	432	Cold-Drawn	Pickled & 320 Grit polish	Passed	Passed

Chemical Composition (W.T. %)

Element	C	Si	Mn	P	S	Cr	Ni	Mo	Ti	-	-	-	-	-
Requirements	≤0.035	≤1.00	≤2.00	≤0.045	≤0.030	18.0-20.0	8.0-11.0	-	-	-	-	-	-	-
Ladle Analysis	0.017	0.35	1.37	0.036	0.001	18.1	8.01	-	-	-	-	-	-	-

Mechanical Properties

Test Item	Y.S. (MPa) Rp0.2	T.S. (MPa) Rm	EL. (%) In2in	Reduction of Area Z (%)	Hardness s	Cold Bend Test	Flaring Test	Flattening Test	P.M.I. TEST
Requirements	≥205	≥515	≥35	-	≤80	-	-	e=0.09	-
Test Results	275	625	60	-	77	Passed	Passed	Passed	Passed

Test Item	Non Destructive Tests		Remarks: - ASTM A269-15a, ASTM A213-17, ASME SA213-17 - TUBES TESTED PER ASTM A1016 - SOLUTION HEAT TREATMENT: 1050°C X 1H - NO WELD REPAIR WAS PERFORMED. - PMI TESTING DONE ON EACH TUBE – SATISFACTORY - IN COMPLIANCE WITH NACE MR0175/ISO 15156-2016 - FREE FROM MERCURY CONTAMINATION - MATERIAL IS FREE FROM RADIOACTIVITY - VISUAL CHECK IS SATISFACTORY - COUNTRY OF ORIGIN: CHINA - COUNTRY OF MELT: CHINA
	Eddy Current Test		
	ASTM E 426		
	Passed		

TESTED
JUL 18 2018
Eric T.
ACCEPTED BY

TW METALS
REPORTS

316L STAINLESS STEEL
QUALITY CONTROL
DEP.



1. WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND THE TEST RESULTS ARE IN COMPLIANCE WITH THE TERMS OF THE PURCHASE ORDER OR CONTRACT
2. THE CERTIFICATE SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE COMPANY.

Prepared by:

[Signature]

Approved by:

[Signature]

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING

SPECIFICATION:

ASTM A213 OR ASME SA213 OR ASTM A269

WALL THICKNESS TOLERANCE PER ASTM A269 AS FOLLOWS:

OD (IN)	PERMISSIBLE OD TOL (IN)	PERMISSIBLE WALL TOL
UP TO 1/2	+0.005	±15%
1/2 TO 1 1/2 EXCL.	+0.005	±10%
1 1/2 TO 2 1/2 EXCL.	+0.010	±10%
2 1/2 TO 3 1/2 EXCL.	+0.015	±10%
3 1/2 TO 8 EXCL.	+0.030	±10%

PART NUMBER:

M304TRD.DDD"W.TTT

WHERE "D.DDD" = OUTSIDE DIAMETER IN INCHES
AND "TTT" = WALL THICKNESS IN INCHES

EG. 0.375" OD X 0.065" WALL TUBING = M304TRD 375W.065

RELEASED
08/10/20

B	REFORMAT DWG ADD SPEC'S (ZN D8-1)	CP	08.10.20
A	NEW ISSUE	DS	01.02.08
REV	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR			
APPROVED			
DE APPR			
DATE	08.10.20		

DART AEROSPACE LTD		REV B
HAUKESBURY, ONTARIO, CANADA		SHEET 1 OF 1
DRAWING NO	M304TR	SCALE
TITLE	304/316 ROUND TUBING	NTS
COPYRIGHT © 2008 BY DART AEROSPACE LTD		

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304TRD.SDOW.049
 DATE: 18/12/02

PO / BATCH NO.: P0041832/S133773

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 120ft
 QUANTITY INSPECTED: 120ft
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500"
 THICKNESS RECEIVED: 0.500"
 SHEET SIZE ORDERED: —
 SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	<u>ASTM A269</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	<u>HT-N171209AS12; N180118AS01</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 61</u> DATE: <u>18/12/02</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in